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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/040,134      | 01/08/2002  | Clyde L. Tichenor    |                     | 8753             |

7590 10/28/2003

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EXAMINER

MEDLEY, MARGARET B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1714

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |  |  |
|------------------------------|---------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/040,134  | <b>Applicant(s)</b><br>TICHENOR ET AL. |  |
|                              | <b>Examiner</b><br>Margaret B. Medley | <b>Art Unit</b><br>1714                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

The instant application was filed with pending claims 1-16

The disclosure is objected to because of the following informalities: Throughout the specification the term "CO2" should be deleted and/or changed to ---- CO<sub>2</sub> ---- or to ---- carbon dioxide----).

Claims 1-16 are objected to because of the following informalities: In each of the claims the term "CO2" should be deleted and/or changed to ---CO<sub>2</sub> ---. Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazbun (Hazbun) 4,770,670). Hazbun teaches and discloses fire resistant micro-emulsions containing phenyl as surfactants wherein the fuel includes gasoline, jet fuel, naphtha, fuel oil, petroleum fractions, diesel fuel, etc., column 10, lines 53-60, designed for use in vehicles including land vehicles, aircraft, and watercraft, column 11, lines 1-24, especially at temperatures below -10 to 20<sup>0</sup> C, particularly at high altitude, column 11, lines 25-31, wherein an acid forming gas, e.g.CO<sub>2</sub> is added to the fuel composition to destabilize and phase separate the micro-emulsion fuels prior to transferring the fuel from bulk storage to final use to prevent engine malfunction and fire resistant, column

11, lines 29-55, column 12, lines 29-32 and Examples 40 and 39 that render the instant claims obvious. The fuel composition of Hazbun containing the CO<sub>2</sub> additive would impart the same or similar properties to the fuel composition to reduce exhaust soot particulate and CO<sub>2</sub> reduction when the fuel is consumed by engine composition, to improve fuel economy and a net fuel cost savings, to reduce fuel viscosity, to improve fuel fire safety factor, to act as an inerting fuel, to optionally extract the CO<sub>2</sub> by mechanical means, to be a transferable and storable fuel, to add to jet fuel and mix with other fluids the CO<sub>2</sub>, to impart substantial de-oxygenation during the CO<sub>2</sub> / fuel mixture, and to not be reacted with the fuel component to render the instant claims obvious, especially in light of the drafted claims not providing any relative terms to the volume ratio of CO<sub>2</sub> to fuel.

Applicants are required to provide the office with a copy of the Jones references mentioned at the top of page 3 of the instant specification and to identify and provide the office with a copy of the co-pending patents disclosed at lines 16 and 19-20 of page 7 of the instant specification.

The prior art cited but not applied further discloses fuel composition and additives e.g. CO<sub>2</sub> or carbon dioxide of the same nature as that of the instant claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret B. Medley whose telephone number is 703-308-2518. The examiner can normally be reached on Monday-Friday from 7:30 am to 6:30pm.

Application/Control Number: 10/040,134

Page 4

Art Unit: 1714

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

M. Medley/lap  
October 20, 2003

*Margaret B. Medley*  
MARGARET MEDLEY  
PRIMARY EXAMINER